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PURE FOOD LAWS

By ALICE M. WESCOTT,
Massachusetts General Hospital

Priscilla Alden, even when she was a Mullens, was a famous cook in her day. So was Mistress Barbara Standish. How interested their descendants and those of the other stately dames of early Massachusetts would be if they could be invited to one of the dinners of "ye olden tyme." On a great blue platter would be plump brown partridge brought down by the flint-lock of John or maybe Captain Myles. There are clams, too, fresh from the sea-shore. Samp made from home-grown and ground corn, with milk rich and creamy, is served in round blue bowls, and beside each bowl the spoon of pewter. Tankards of home-brewed ale were there and silver pitchers of cider. Pure food laws they had none. Their foods were grown on their farms, and their medicines gathered by the waysides.

As time has gone on, and kinds and qualities of foods changed and multiplied, progress made in the arts and sciences, and population increased, men came to specialize on certain kinds of work to meet the laws of demand and supply and the condition became such that at every single meal, foods prepared by other hands and brought from far away were served. So to protect the consumer, laws had to be made to insure the purity of these foods, for it came to pass that adulterated, misbranded, and even contaminated foods were being sold. These laws are necessary both from a health and an economic point of view. From the stand-point of the nursing profession the first of these is the more important. Probably there is no one article that is such a menace to the public health as impure milk. No doubt the good Pilgrim and Puritan mothers fed their babies in the way nature intended, but to later mothers who, from necessity or choice, feed their babies on cows' milk, nothing can exceed in importance the guarantee of absolute purity of the milk supply. Indeed the long train of consequences following the use of impure milk both by babies and adults speaks for itself. Any disease of the cow, such as tuberculosis, may be transmitted in the milk, as well as germs of disease to which the milk has been exposed. Numberless cases of tuberculosis have been proven to have originated in this way. It is said that almost every epidemic of typhoid fever of any size in Massachusetts has been due to contaminated milk. Tonsillitis is another disease the germs of which are often carried in milk. The wide-spread reign of sore throat in the vicinity of Boston last year was supposed to have been caused by the milk supply from well-known farms.

Another recent epidemic of tonsillitis, carried by impure milk, has travelled over Chicago, making 10,000 people sick. It is probable that many of these cases had some of the sequellæ of tonsillitis, such as arthritis and endocarditis, making it still more serious.

Aside from the detriment to health of adulterated foods, there is a financial loss as well. The housekeeper must spend valuable time and have many perplexing problems in searching for foods that are reliable. The financial loss is hard to estimate, but Dr. Abbott, who was in charge of the food inspection of Massachusetts for twenty years, said in 1905 that "the effect of a well-enforced food law has been to save the consumer not less than 5 per cent. of the cost of the food consumed in the state." Five per cent. is a high rate of interest to lose.

Before attempting to purify the foods, it was necessary to have standards of purity for food products. Such have been established by the Department of Agriculture and the Interstate Food Commission, first in 1904, and changed to the present form, June 26, 1906. On June 30, 1906, four days later, an Act was passed commonly called the "Food and Drugs Act," for the purpose of "preventing the manufacture, sale, or transportation of adulterated or misbranded, or poisonous or deleterious foods, drugs, medicines, and liquors, and for regulating the traffic therein."

Previous to this many of the states had pure food laws, Massachusetts as early as 1880, and it is said that the framers of the national pure food law used the Massachusetts statute of 1882 as their model. These state and national laws are so framed that they must co-operate to be effectual, neither one alone being sufficient to cover all needs. The national law is enforced through the Bureau of Chemistry of the Department of Agriculture. There is a central laboratory at Washington, and there are over twenty branch laboratories scattered over the country, besides many local and itinerant inspectors.

The Boston laboratory is at 177 State Street, in the United States appraiser's stores, and all foods and drugs imported into Boston and all interstate products of domestic manufacture are examined here. "On the arrival of goods at the dock, a portion of each shipment (usually one package in ten) is sent to the appraiser's stores, where the value of the goods is determined by a representative of the Treasury Department, and the duty assessed. At the same time, a representative of the Bureau of Chemistry examines the shipment, if it is of foods or drugs, and if any violation of the law, a hearing is assigned the importer, and the goods may be ordered relabelled, reshipped, or such other action taken as circumstances require." With products of domestic manufacture, the procedure is somewhat different. If the question of injuriousness to health is involved, or the goods are in flagrant violation of the law, the "goods are seized pending the disposal of the matter by the courts." The more usual procedure consists in first citing the manufacturer to a hearing and unless evidence is produced to show that the goods are not in violation of the law the case is referred through the Department of Justice to the local United States attorney, who files an information against the manufacturer who is criminally prosecuted.

The headquarters of the State Board of Health are at the Massachusetts State House. The laboratory here, with its three chemists and three inspectors, seems a small place to be the centre of such an important work as has been done by the state of Massachusetts. Its dusty shelves, filled with dustier samples of bottles and cans and boxes and jars of different foods and drugs, look more like a general dry goods store in a country town than anything else.

However, each of these articles has a history, as was explained to us by one of the chemists busy there. For instance, one jar contained a preparation sold in Lowell a short time ago as milk, chemical examination of which had shown it to be condensed milk with much water and a little milk sugar added. Some of the most noticeable samples were of olive oils, pickles, spices, canned goods, flavoring extracts, coffee, cocoa, hair dyes, etc. A large box contained bottles of lime juice put up at different places and by different companies, and the chemist told us that just now a general inspection of that article is being made, as several violations had been detected.

A huge poster on the wall gave a number of violations of the law found in certain articles each year since the Department was organized. The records were made with dots on lines like a temperature chart. It is surprising how the number has decreased in the last few years.

We saw, too, many misbranded articles and some with misleading labels. One label especially was a clever fraud. It was printed in different kinds of type, the part intended to be made prominent in large letters with the tell-tale adulteration put down in conformance with the law, but in such fine letters and in such an inconspicuous place as not to be noticed without examination.

Much of the work done by the State Board of Health is the examination of conditions outside, such as water supplies, slaughtering of animals for food, and inspection of dairy farms. Interesting statistics of the number of cases examined and the findings were published in the *Boston Herald* of August 5. More than half of the money appropriated is spent on examination of the milk supply, over 2000 dairies being inspected in a year. The City Board of Health co-operates with the state and national departments in this work. Massachusetts cities have less to do on these lines than most other cities, since the state does more.

The kinds of adulteration are divided into three classes: (1) deleterious—such as the addition of boric acid to meat; (2) fraudulent—like the substitution of oleomargarine for butter; (3) innocent—an example of which is the addition of butter coloring to butter.

Sanitation is a much spoken word nowadays, and there is a constantly increasing demand for food that is not only chemically pure and properly labelled, but prepared in a sanitary way. Rigid exclusion of flies, or better still prevention of their breeding, clean hands, clean clothing, workers free from communicable disease, wroking in a clean, well-ventilated room, are some of the essentials in the sanitary preparation of food.

The newspapers occasionally give accounts of evasion of the law, such as allowing, for instance, the sale of diseased beef in New York City, but it must be remembered that this trouble is due to the way in which the law is enforced rather than to the law itself.

Secretary Wilson, of the Department of Agriculture, said in *Harper's Weekly* not long ago: "It is my opinion that the Food and Drugs Act is highly effective in its present form." A flaw in this law in its effort to remedy faulty conditions was shown in the recent "Johnson decision." Misbranding was alleged of a "mild combination treatment for cancer," consisting of several packages bearing the statement that the treatment would effect the cure of cancer. The indictment alleged that the representations were false and misleading statements regarding the article, and that the drug was misbranded, because the analysis showed the treatment worthless for the pretended purpose. An adverse verdict in the district court was affirmed by the Supreme Court, with the result that many manufacturers, who had changed their labels since the Act went into effect, promptly adopted a label like the one discarded. The "Shirley Bill," an amendment which includes under the term misbranding, as used in the law, any "false statement, design, or device regarding the curative or therapeutic effect" of the contents of a package is designed to remedy this defect.

The twentieth century, even so early as this, has been called the Health Age. Certainly pure food has played an important part in bringing this about. The man whose name is most closely associated with pure food and pure food laws, and who has done most to make them possible, is Dr. Harvey W. Wiley, for many years chief of the Bureau of Chemistry of the Department of Agriculture. Much credit is due him for his far-reaching work along these lines.